

## REMARKS

### I. Summary

This amendment and response is in reply to the Non-Final Office Action mailed November 13, 2008 ("the Office Action"). Claims 1-14 were rejected.

In this amendment and response, claims 1, 2, 4, 6, 12, 13, and 14, have been amended. The amendments of dependent claims 2, 4, 6, 12 and 13 are to conform with the amendments presented in independent claims 1 and 12. Claim 14 has been amended to address a minor claim dependency error. Claim 5 has been canceled and re-introduced as new claim 15 to address a minor claim grouping error.

Assignee has also introduced new claims 16-18. No new subject matter has been introduced as a result of these amendments or new claims.

Claims 1-4 and 6-18 are currently pending.

### II. Rejections under 35 U.S.C. § 101: Claims 1-11 and 14

Claims 1-11 and 14 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. (the Office Action, p. 2). In this response, claim 1 has been amended to encompass statutory subject matter. In view of this amendment, Assignee respectfully requests withdrawal of the rejection under 35 U.S.C. § 101.

The Office Action asserts that the subject matter recited by claim 1 does not fall within one of the four categories of invention. According to the Office Action, because claim 1 recites a method, the acts performed by the method must be tied to another statutory category or transform underlying subject matter to a different state or thing. The Office Action asserts that the method recited by claim 1 is not tied to another statutory category nor transforms underlying subject matter to a different state or thing. (the Office Action, p. 2).

Amended claim 1 now recites that at least one of the acts performed by the method is tied to another statutory category. As a first instance, amended claim 1 now recites providing, with a calculator a first set of oriented views of the preregistered picture in various orientations is performed with a calculator. Support for this feature can be found in

the application as filed and in the subject matter of original claim 12. In addition, the application discusses the calculation of the oriented views at page 7, ll. 7-30. For example, the application describes that the oriented views, such as the advertisement pictures, are calculated, taking into account their content and location on a moving object of a scene, such as car. In addition, the orientation of the oriented views are determined on the basis of a geometrical representation of the object with respect to a reference point of this object. By reciting that the calculator of claim 12 provides the oriented view, the method of claim 1 is tied to another statutory category of subject matter. Accordingly, for at least this first reason, Assignee respectfully submits that amended claim 1 recites patentable subject matter.

In addition, and as a second reason for patentability under 35 U.S.C. § 101, amended claim 1 now recites that the first set of oriented views are stored in a machine-readable medium. Support for this amendment can be found in the application as filed, such as in Figure 4 and its supporting description. Figure 4 shows that the oriented views, such as the advertisements, are stored first in a main database 51 and are later transmitted to a database 61 stored in a set top box 11. The application describes this storing and transmission process at page 11, lines 5-17. As one of ordinary skill in the art would understand, a database, such as the main database or the database of the set top box, is typically stored on machine-readable medium. Moreover, because the application describes that the oriented views are transmitted via satellite from the main database to the set top box database, one of ordinary skill in the art would also understand that the oriented views are stored in an electronic format. Hence, the application implicitly supports the feature of storing, in a machine-readable medium, the first set of oriented views associated with each orientation index. Accordingly, for at least this second reason, Assignee respectfully submits that amended claim 1 recites patentable subject matter.

Furthermore, the providing and storing acts recited by amended claim 1 are more than extra-solution activity. As discussed below, the features recited by amended claim 1 distinguish the method for generating a superimposed stream of video images from the methods and systems discussed by the references applied in the Non-Final Office Action.

Hence, amended claim 1 now recites patentable subject matter. As amended claim 1 now recites patentable subject matter, dependent claims 2-4, 6-11, and 14-18 also recite patentable subject matter. Assignee respectfully requests withdrawal of the rejection under 35 U.S.C. § 101.

### **III. Rejections Under 35 U.S.C. § 102: Claims 1-9 and 11-14**

Claims 1-9 and 11-14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Lemmons (U.S. Pat. App. Pub. No. 2003/0028873). In making the 35 U.S.C. § 102(e) rejection, the Non-Final Office Action also relies on Markel (U.S. Pat. App. No. 60/354,745), which was incorporated by reference into Lemmons. In view of the amendments to independent claims 1 and 12, Assignee respectfully traverses these rejections.

Lemmons is generally directed to post-production visual enhancements and modifications. (Lemmons, ¶0003). Lemmons describes using "labels" for advertising, promotional, or other informational elements, superimposed into a video stream after the production of a video. (Lemmons, ¶0010). Lemmons describes that the labels can be coded to change on a per-scene basis and illustrates the application of the labels in varying camera angles in Figure 4a and Figure 4b. (Lemmons, ¶0050, Fig. 4a, Fig. 4b). Lemmons further provides for the application of labels to objects in a video that move through space. (Lemmons, ¶0080, Fig. 14). To place the labels on the moving objects, Lemmons discloses the use of "tags" and "moving tags." (Lemmons, ¶0081). Lemmons explains that a "tag" may comprise a location or several defining locations, and a contour of the object or a blank space. (Lemmons, ¶0081). For moving objects, Lemmons describes that a "moving tag" may be superimposed on the video stream. (Lemmons, ¶0083). Lemmons relies on the disclosure provided by Markel in superimposing a "moving tag" into the video stream. (Lemmons, ¶0083).

Markel is generally directed to interactive video and, specifically, to the tracking of moving objects on video with interactive access points. (Markel, p. 1, ll. 5-7). Markel describes the interactive access points as "hot spots." In tracking the hot spots, Markel uses an XML file that encodes the time at which the hot spot occurs during the playback of

an interactive video. (Markel, p. 12, ll. 1-3; Markel, Fig. 7). Markel describes that the XML file may contain information such as the frame number of the hot spot, the top coordinate for the first frame's hot spot, the left coordinate for the first frame's hot spot, the height of the first frame's hot spot, and the width of the first frame's hot spot. (Markel, p. 12, ll. 10-23). The XML file may also contain information for more than one hot spot.

#### A. Claim 1

Amended claim 1 now recites the features of providing, with a calculator, a first set of oriented views of the picture in various orientations, associating each oriented view of the first set of oriented views with an orientation index that identifies the physical orientation of the oriented view, and storing the first set of oriented views associated with each orientation index. Amended claim 1 also recites selecting the orientation index of the oriented view having the same orientation as the area in the current image, and transmitting with each current image the selected orientation index. Support for these amendments can be found throughout the application as filed and, as examples, at page 7, ll. 11-22, and at pages 11-12, ll. 34-4.

The Lemmons/Markel reference does not teach every feature of amended claim 1. In particular, the Lemmons/Markel reference does not teach associating oriented views with an orientation index that identifies the physical orientation of the oriented view and selecting the orientation index of the oriented view having the same orientation as an area in a current image. As the application describes at page 7, ll. 11-22, the calculation of an oriented view, such as an advertisement, is based on the geometrical representation of an object with respect to a reference point of this object. The application further describes that each of the oriented views is stored with its location from the reference point of the object and with an identifying reference. The application further describes the process in which the oriented views are selected, taking into account the orientation of the object to which the oriented views are applied. For example, at page 11, ll. 18-32, the application describes that the physical orientation of an object to which the oriented views are applied, such as a moving car, is accounted for using accelerometers and/or gyroscopes. Based

on this orientation information, an oriented view is selected for superimposing on the object.

In contrast, the Lemmons/Markel does not calculate a first set of oriented views of the preregistered picture in various orientations, associate each of the oriented views with an orientation index that identifies the physical orientation of the oriented view, and select the orientation index of the oriented view having the same orientation as an area in a current image. Lemmons/Markel relies on frame numbers and time codes to determine when a "label" should be placed on a moving object. For example, Lemmons specifically relies on the disclosure provided by Markel in superimposing a "moving tag" into the video stream. However, as Markel explains, the hot spots are tracked based on frame numbers, which are denoted by the "<time>" and "</time>" XML tags shown in Figure 7. Neither Lemmons nor Markel associate oriented views with an orientation index that identifies the orientation of the oriented view, nor do Lemmons or Markel **select** an orientation index of an oriented view having the same orientation as an area in a current image. Simply inserting a "hot spot" based on a frame number embedded in a "<time>" tag does not involve determining whether the orientation of the "hot spot" is the same orientation as the area on which the "hot spot" is superimposed. A frame number embedded in the XML file of Markel is not an orientation index because they do not identify the orientation of the associated hot spot. Moreover, a hot spot of Markel is not selected for superimposing in a video **according to physical orientation**, but according to the frame number embedded in the XML file.

Hence, the Lemmons/Markel reference does not teach all of the features recited by amended claim 1. Accordingly, amended claim 1 is patentable over the Lemmons/Markel reference. As amended claim 1 is patentable, dependent claims 2-4, 6-11, and 15-16 are also patentable.

#### B. Claim 12

Amended claim 12 is directed to a system that practices the method recited by amended claim 1. Amended claim 12 now further defines that the previously recited calculator associates an orientation index that identifies the orientation of an oriented view

associated with the orientation index. Support for these amendments can be found throughout the application as filed and, as examples, at page 7, ll. 11-22, and at pages 11-12, ll. 34-4.

As discussed above, the Lemmons/Markel reference does not teach associating an orientation index that identifies the orientation of an oriented view associated with the corresponding orientation index or selecting an oriented picture having the same orientation than an area in a current image and providing the associated orientation index. Hence, the Lemmons/Markel reference does not teach the calculator, selector, or generator recited by amended claim 12.

Accordingly, for at least the same reasons as discussed above with respect to amended claim 1, amended claim 12 is also patentable over the Lemmons/Markel reference. As amended claim 12 is patentable, dependent claim 13 is also patentable.

#### **IV. Rejection Under 35 U.S.C. § 103: Claim 10**

Claim 10 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Lemmons in view of Wixson (U.S. Pat. No. 6,434254). However, claim 10 is patentable for at least the same reasons as amended claim 1 because Wixson does not make up for the deficiencies of Lemmons. Wixson is generally directed to a method and apparatus for detecting and tracking objects within a sequence of images. (Wixson, col. 1, ll. 7-9). Wixson describes using various calculations to detect an object in well-lit scenes and another set of calculations for detecting an object in poorly-lit scenes. (Wixson, col. 1, ll. 59-64). Neither Lemmons nor Wixson, alone or in combination, teach or suggest associating oriented views with an orientation index that identifies the orientation of the oriented view or selecting the orientation index of the oriented view having the same orientation as an area in a current image.

Hence, for at least the same reasons as independent claim 1, dependent claim 10 is patentable over Lemmons in view of Wixson. Accordingly, Assignee respectfully requests withdrawal of the rejection under 35 U.S.C. § 103(a).

## V. New Dependent Claims 16-18

In this response, Assignee has introduced new dependent claims 16-18 that further define the method recited by amended claim 1. In addition to the amendments of claim 1, new dependent claims 16-18 recite subject matter that also overcome the rejections under 35 U.S.C. § 101.

Dependent claims 16 and 17 are directed to the superimposing of the oriented view having the same orientation as the predetermined area in the current image. Dependent claim 18 is directed to the display of a video image that includes an oriented view having the same orientation as the predetermined area in the current image superimposed on the predetermined area in the current image. Support for all three dependent claims can be found throughout the application as filed. For example, support for claim 16 can be found at page 4, support for claim 17 can be found at pages 1-2 and pages 9-10, and support for claim 18 can be found at page 10.

Assignee respectfully requests allowance of dependent claims 16-18.

## VI. Conclusion

Therefore, in view of the above remarks, Assignee respectfully submits that this application is in condition for allowance and such action is earnestly requested.

If for any reason the Examiner is not able to allow the application, he is requested to contact the Assignee's undersigned attorney at (312) 321-4200.

Respectfully submitted,

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